



AI-B001

Single-Gas Detection | High-Precision Alerts

Introduction

Ensure safety in hazardous environments with our **Portable Gas Detection Alarm Device**, engineered for real-time monitoring of **toxic, harmful, and explosive gases**. The device offers multi-mode alerts (sound, light, vibration) to ensure timely detection of gas leaks and oxygen deficiency.

- **Designated Use Only:** Maintenance and operation must be handled by trained personnel only
- **Strict Guidelines:** No underground charging or unauthorized disassembly

Features

- Single-Gas Detection
- High-Precision Alarms (Sound >75 dB, visible light >20m)
- Multiple Alert Modes: Sound + Light + Vibration + Light Bar
- Compact & Lightweight: 107mm × 58mm × 30mm | ~150g
- Continuous Runtime: ≥12 hours
- USB Charging with Indicators
- Memory-Free Lithium Battery with Protection Board
- Data Logging & Communication Interface (USB)
- Real-Time Display: Gas concentration, battery, time, and date
- Simple Interface with Menu-Based Navigation
- Storage & Record Browsing Functions

Specifications

Specification Category	Details
Detection Method	Natural diffusion type (portable)
Alarm Types	Sound, Light, Vibration, Light Bar
Alarm Sound Intensity	>75 dB at 1 meter distance
Alarm Light Visibility	>20 meters (in darkness)
Continuous Operating Time	≥12 hours
Sensor Lifespan	Catalytic ≥1 year Electrochemical ≥2 years Infrared ≥3 years
Outer Dimensions	107 mm × 58 mm × 30 mm
Weight	Approx. 150g
Battery Type	Manganese acid lithium battery with protection board (mine-use)
Open-Circuit Battery Voltage	≤ 4.2V
Max Battery Output Current	≤ 1.6A
Battery Features	Memory-free, with voltage display, under-voltage warning, auto shutdown
Charging Features	USB charging with indicator light, charge cut-off, ~5–6 hours charging time
Power Source Input	AC 220V, 50Hz
Storage Capability	Interval data storage, overwrite option, record browsing by table & curve
Communication	USB data transmission (wired), supports real-time & historical data, curve generation
Shutdown Protection	Auto shutdown when battery voltage < 3.2V
Low Voltage Alert	Audible/visual warning at battery voltage < 3.4V

Technical Parameters

Gas Name and Chemical Formula	Measurement Range	Resolution	Response Time	Alarm Point	Alarm Error
CH4 (catalyse)	0.00%~4.00%	0.01	≤20s	1.00	±0.05%
CH4 (infrared)	0.00%~5.00%, 0.00%~10.00%, 0.00%~100.00%	0.01	≤30s	1.00	±0.05%
O2	0.0%~25.0%	0.1	≤35s	18.0	±0.3%
CO	0~1000ppm	1	≤45s	24	±1
H2S	0.0~100.0ppm	0.1	≤45s	10.0	±3
CO2	0.00%~5.00%	0.01	≤30s	1.00	±0.5%
LEL	0~100%	1	≤20s	25	±2%
SO2	0.0~100.0ppm	0.1	≤45s	10.0	±3
NO	0~250ppm	1	≤45s	10	±1
NO2	0.0~100.0ppm	0.1	≤45s	10.0	±2
Cl2	0.0~100.0ppm	0.1	≤45s	5.0	±2
H2	0~1000ppm	1	≤60s	10	±1
NH3	0~200ppm	0.1	≤45s	10	±1

Applications

- Metal mines
- Coal mines
- Petrochemical industries
- Tunnel operations
- Firefighting and emergency rescue
- Municipal gas and electric power departments
- Fixed installations & mobile worker safety monitoring



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